# Open Education Resources to Support

# Adult STEM Teaching and Learning

## Background

As the national economy expands in areas of science, technology, engineering and math (STEM), the teaching of this content has become vital for adults to succeed in the workplace. The US Department of Education’s Office of Vocational and Adult Education (OVAE) is invested in accelerating the teaching and learning of STEM competencies through high-quality open educational resources (OERs) and high quality adult education instruction of STEM.

## Overview

OVAE, through a contract with American Institutes for Research, will develop new and innovative ways to improve the teaching of STEM content to adult education students using OERs. Though freely available online, the sheer volume of resources and the fact that many are geared toward children or college students poses challenges to adult educators for using them with low literate adult learners. To address these challenges, the project will develop criteria to evaluate resources suitable for adult learners and identify OERs that meet the criteria. In addition, the project will develop courses to train adult educators on STEM OERs and will provide training and facilitators’ guides for each course on how to use the OERs. The project will also develop a communication plan that will generate interest in the project and resulting resources as well as generate excitement and interest in the adult education field about STEM topics. Finally, the project will provide two briefs on the application of the National Education Technology Plan (NETP) for adult education and the feasibility of an alternative credentialing model for non-traditional educational entities using digital badges. The project period runs from June 2012 to June 2015.

## Project Milestones

* Develop NETP recommendations for adult education, Spring 2013
* Develop recommendations for the use of digital badges, Summer 2013
* Develop a communications plan for building interest in STEM among adult educators, Winter 2013
* Establish online user groups to use and evaluate science and math OERs, 2013–2014
* Create online courses on how to use OERs, Winter 2014 through Summer 2015
* Develop and implement professional development training for the online courses, 2015
* Provide at least 96 reviews of OERs and “friendly” evaluation criteria for OERs for online sharing, 2015

## Outcomes and Products

* Two reports on the application of the NETP and the use of digital badges as an alternative credential model in adult education that will help OVAE, its partners, and the field broaden options for the application of technology in adult education.
* A collection of science and math OERs that have relevance in adult education as well as online courses and professional development that will contribute to the increasing use of these resources in adult teaching and learning.
* A communication plan that looks at the future of STEM teaching in adult education to move the field forward to ensure that adult instructors and learners have the tools they need in their careers.

**Contact**: Tanya Shuy: Tanya.Shuy@ed.gov